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PETER NEWELL

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Democratising biotechnology? Deliberation, participation and social regulation in a neo-liberal world

PETER NEWELL*

Abstract. There is now significant policy and academic interest in the governance of science and technology for sustainable development. In recent years this has come to include a growing emphasis on issues of public understanding of science and innovative processes of deliberative and inclusive policy-making around controversial technologies such as nuclear power and agricultural biotechnology. Concern with such issues coincides with rising levels of interest in deliberative democracy and its relationship to the structures and processes of global governance. This article connects these two areas through a critical examination of 'global' deliberations about agricultural biotechnology and its risks and benefits. It draws on an extensive survey concerned with the diverse ways in which a range of governments are interpreting and implementing their commitments under the Cartagena Protocol on Biosafety regarding public participation and consultation in order to assess the potential to create forms of deliberation through these means. The article explores both the limitations of public deliberation within global governance institutions as well as of projects whose aim is to impose participation from above through international law by advocating model approaches and policy 'tool kits' that are insensitive to vast differences between countries in terms of capacity, resources and political culture.

Introduction

There is now significant policy and academic interest in the governance of science and technology for sustainable development.¹ In recent years this has come to include a growing emphasis on issues of public understanding of science and innovative processes of deliberative and inclusive policy-making around controversial technologies such as nuclear power and agricultural biotechnology.² Concern with such issues coincides with rising levels of interest in deliberative

* I am grateful to the anonymous reviewers of this paper, the editors James Brassett and William Smith, Kimberly Hutchings and other participants in the ISA panel on this theme in San Francisco.

¹ Melissa Leach, Ian Scoones and Brian Wynne (eds), *Science and Citizens* (London: Zed press, 2005); James Keeley (ed.), *Democratising Biotechnology*, IDS Briefings (Brighton: Institute of Development Studies 2003); Hebert Gottweis, *Governing Molecules: The discursive politics of genetic engineering in Europe and the US* (Cambridge MA: MIT Press, 1995).

² Simon Joss (ed.), 'Public participation in science and technology', special issue, *Science and Public Policy*, 26:5 (1999); Walter Baber and Robert, V. Bartlett, *Deliberative Environmental Politics: Democracy and Ecological Rationality* (Cambridge MA: MIT press, 2005); Minu Hemmati, *Multi-stakeholder processes for governance and accountability* (London: Earthscan, 2002).

democracy and its relationship to the structures and processes of global governance.³ This article connects these two areas of interest through a critical examination of 'global' deliberations about agricultural biotechnology and its risks and benefits.

It seeks to address a key deficit noted in the literature whereby 'Democratic theorists have often seemed unconcerned about the practical applications of deliberative democracy and have restricted their concerns to normative and procedural values, leaving the practical realm out of their focus of inquiry'.⁴ To do so, it draws on an extensive survey conducted for the UK Department for International Development (DfID) concerned with the diverse ways in which a range of governments⁵ are interpreting and implementing their commitments under the Cartagena Protocol on Biosafety regarding public participation and consultation. It argues that the limited forms of meaningful participation and deliberation observed reflect a neo-liberal model of public participation in which citizens are encouraged to engage in policy in their role as consumers of products rather than as social agents with a right and a capacity to contribute towards new forms of social regulation of technology development and diffusion. Whilst evidence is found of the creation of invited spaces of participation, deeper forms of public deliberation are much rarer and are largely absent altogether within and beyond the global institutions charged with handling agricultural biotechnology.

Through this case, the article explores both the limitations of public deliberation within global governance institutions as well as projects which aim to impose participation from above through international law by advocating model approaches and policy 'tool kits' that are insensitive to vast differences between countries in terms of capacity, resources and political culture. The article highlights the issues of power at play in these processes, despite attempts to de-politicise them, and sheds light on the strategies employed by policy elites to protect established accumulation strategies *vis-à-vis* biotechnology in the face of potential public challenges to claims made on behalf of the technology regarding an array of social and environmental benefits. Though it focuses on GM (genetically-modified) food, the issues it raises resonate with the challenges faced by governments and publics in relation to deliberating social choices around other pertinent global issues such as climate change⁶ equally characterised by high levels of uncertainty, long term time frames and high economic stakes and addressed across multiple governance scales.

³ James Bohman, *Public Deliberation: Pluralism, Complexity, Democracy* (Cambridge MA: MIT Press, 1996); James Bohman and William Rehg (eds), *Deliberative Democracy: Essays on Reason and Politics* (Cambridge: MIT press, 1997); John Dryzek, *Deliberative Democracy and Beyond: Liberals, Critics, Contestations* (Oxford: OUP, 2000); John Dryzek, *Deliberative Global Politics: Discourse and Democracy in a Divided World* (Cambridge: Polity Press, 2006).

⁴ Manjusha Gupta and Robert V. Bartlett, 'Necessary preconditions for deliberative environmental democracy? Challenging the modernity bias of current theory', *Global Environmental Politics*, 7:3 (2007), pp. 94–107, p. 94.

⁵ Through interviews, surveys and data collection the experience of 16 countries was analysed; Brazil, Canada, China, Denmark, Estonia, Ethiopia, India, Kenya, Malaysia, Mexico, Namibia, New Zealand, Norway, UK, US, Zimbabwe.

⁶ Roger Few, Kate Brown and Emma Tomkins, 'Public participation and climate change adaptation: Avoiding the illusion of inclusion', *Climate Policy*, 7 (2007), pp. 46–59.

Deliberating globally

What do we mean when we talk about deliberation in global governance? Who deliberates, about what and how? It is clear that if we employ Smith and Brassett's definition of deliberative democracy as 'a system of government in which free and equal citizens engage in a collective process of political debate',⁷ many global policy engagements would not qualify because of the absence of overarching authority structures. Even where there is evidence of participation (as opposed to deliberation) in global policy processes, it is rarely allowed to directly or formally shape law and policy in the relatively closed world of inter-state bargaining. Well organised and resourced NGOs and business groups constitute an effective presence in global negotiations, but very few citizens participate *directly* in decision-making within global bodies, even if some international institutions provide citizens with rights to participation and consultation through making one off statements in their plenary sessions, or as observers of inter-state deliberations. Instead, in so far as publics are represented in global policy processes, this occurs through forms of indirect representation through civil society organisations and nation-states. This narrows significantly the field of play. It implies, as we will see below, uneven national processes of deliberation with unclear and inconsistent means for 'feeding' national public debates and preferences into global policy arenas. Many international institutions are keen to emphasise the idea that states bear the duties of consultation with publics, not global bodies. The WTO's guidelines on relations with civil society, for example, state:

As a result of extensive discussions, there is currently a broadly held view that it would not be possible for NGOs to be directly involved in the work of the WTO or its meetings. Closer consultation and cooperation with NGOs can also be met constructively through appropriate processes at the national level where lies primary responsibility for taking into account the different elements of public interest which are brought to bear on trade policy-making.⁸

Reliance upon civil society actors as intermediaries for the expression of public interests or the facilitators of deliberation is also restrictive, however. In global terms, a tiny percentage of global civil society participates directly in the forms of global politics that play out in international arenas for reasons of resources, priorities or choices not to engage. For these reasons, more critical and southern-based groups are often screened out of global debates.⁹ This is a far cry from the ideal scenario in which 'sufficient levels of political equality, in the form of equal 'capacities' for influence and organisation, needs to be achieved to secure the legitimacy of deliberative global institutions'.¹⁰ This is not a limitation specific to global institutions and decision-making of course. Direct participation by citizens is rare at national level and intermediaries play equally important but

⁷ William Smith and James Brassett, 'Deliberation and Global Governance: Liberal, Cosmopolitan and Critical Perspectives', *Ethics & International Affairs*, 22:1 (2008), pp. 69–92, p. 72.

⁸ WTO, *Guidelines for Arrangements on Relations with NGOs*, Document WT/L/162, 18. July, (Geneva: WTO, 1996).

⁹ Pratap Chatterjee and Matthias Finger, *The Earth Brokers: Power, Politics and World Development* (London: Routledge, 1994); Rorden Wilkinson, 'The contours of courtship: The WTO and civil society', in Rorden Wilkinson and Steven Hughes (eds), *Global Governance: Critical Perspectives* (London: Routledge, 2002), pp. 193–212.

¹⁰ James Bohman, 'Cosmopolitan Republicanism', *The Monist*, 84:1 (2001), pp. 3–22, p. 17.

problematic roles as brokers of social demands in national public arenas. Citizenship and its ties to the nation state, does, however, confer on those wanting to be represented in processes of public consultation and deliberation the right to participate, as part of a social contract, the like of which does not exist globally to bind global institutions to dispersed citizens of the world.

The discussion about the theory and practice of deliberation in global politics relates to broader debates about the democratic deficits that characterise many global governance institutions and the weakness of systems of accountability that link global bodies to citizens.¹¹ Hence whilst global institutions increasingly make policy in areas of political life which touch us in direct and profound ways through governing access to water, education or food, the mechanisms by which citizens can shape such policies are often weak or non-existent. Cosmopolitan accounts of deliberation invoke it specifically as a means to 'democratise' global governance institutions such that the definition of agents of deliberation includes citizens and civil society alongside states as actors forging trans-national ties and providing checks on the exercise of power aimed at enhancing the 'reason responsiveness' of global governance institutions.¹² Yet at the international level the mechanisms we have for claiming by 'accountability seekers' and the means for realising accountability by 'accountability providers' are highly under-developed.¹³ The checks and balances that characterise many systems of national political governance are poorly embedded or non-existent in transnational arenas of governance where 'executive multilateralism' prevails.¹⁴ This may be considered to be as true of the politics of the environment as it is for other global issue areas. Scholte suggests 'a notional accountability chain does connect voters via national parliaments and national governments to global governance organizations, but the links in practice have been very weak'.¹⁵ For example, 'national parliaments have exercised only occasional and mild if any oversight over most supra-state regulatory bodies'.¹⁶ There is much evidence that even around agreements with far reaching social and environmental implications such as the TRIPs (Trade-Related Intellectual Property Rights) agreement of the WTO, parliaments have been kept out of decision-making and often remain unaware of the extent of the commitments their government has signed up to.¹⁷ Instead, unelected technocrats represent

¹¹ David Held and Mathias Koenig-Archibugi (ed.), *Global Governance and Public Accountability* (Oxford: Blackwell, 2005).

¹² David Held, 'Democratic Accountability and Political Effectiveness from a Cosmopolitan Perspective', in David Held and Mathias Koenig-Archibugi (eds), *Global Governance and Public Accountability* (Oxford: Blackwell, 2005), pp. 240–68.

¹³ Anne-Marie Goetz and Rob Jenkins, *Reinventing Accountability: Making Democracy Work for Human Development* (Basingstoke: Palgrave, 2004).

¹⁴ Michael Zürn, 'Global Governance and Legitimacy Problems', in Held and Koenig-Archibugi, *Global Governance and Public Accountability*, pp. 136–64.

¹⁵ Jan Aart Scholte, 'Civil Society and Democratically Accountable Global Governance', in Held and Koenig-Archibugi, *Global Governance and Public Accountability*, pp. 87–110, p. 87.

¹⁶ *Ibid.*, p. 87.

¹⁷ This was an issue I discussed with activists and parliamentarians in Peru in December 2004 in relation to the implications of TRIPs to access to affordable drugs in the country. A similar experience of exclusion of parliaments was observed in relation to Kenya's acceptance of the TRIPs agreement, despite implications for farmers' rights to seed and existing plant variety protection legislation. Hannington Odame, Patricia Kameri-Mbote and David Wafula, 'Globalisation and the international governance of modern biotechnology: implications for food security in Kenya', *IDS Working Paper*, 199, Biotechnology Policy Series 20 (Brighton, UK: IDS, 2003).

their governments at the international level, without a direct connection to citizens whose interests they are, in theory, advancing.

The inequities in capacity and participation which mean that most governments in the majority world are not able to even be present, let alone adequately represent the interests of their publics in arenas in which demands for legal and scientific expertise are high, also apply to civil society. Moreover, merely constructing more 'spaces' for civil society groups within international institutions does not address the inequalities within civil society that will continue to mean participation (and by implication, capacity for deliberation) is unevenly distributed by region, issue, as well as other key social cleavages such as gender, race and class.¹⁸ Marceau and Pedersen's argument that merely constructing more institutional spaces means, some groups 'get two bites at the apple':¹⁹ a high degree of access and presence at the national level and then a second opportunity to pressure other governments at the international level, is relevant here. Many developing countries rightly fear that the inclusion of well-resourced groups able to represent themselves at both levels merely amplifies the voice of already powerful states since that is where the wealthiest and most internationalised groups are based.²⁰

Hence we encounter the twin reality of advanced industrialised liberal democratic states with ample capacity to adequately represent the voices of their citizens in global *fora*, but who seldom do so, and at the same time a much broader pool of poorer governments without capacity to adequately represent either themselves or their publics in global *fora*; an absence that is also not compensated for by extensive civil society participation. Therefore, assumptions both about state capacity and willingness to serve as effective vehicles for the transmission and mediation of citizen preferences and the outcomes of their deliberations within global *fora*, or about open and accessible spaces existing within global bodies, need to be reassessed.

Indeed, it is often the case that those that stand to gain from the outcomes of inter-state negotiations have the power and resources to shape them and often prefer to try to influence debate in *fora* removed from the more *quotidian* and extensive engagement of national civil societies and state parliaments, in regional or global venues where their opponents are unable to represent themselves and voice their concerns. This is often the case with business groups able to shape global outcomes more effectively without the counter-veiling force of civil society groups critical of their position and ready to expose governments' complicity in agreements that serve the public poorly. Powerful actors can 'forum-shop' and venue-shift, moving an issue to an institution where, for reasons of mandate or access, they are best able to secure a favourable outcome. Regarding Intellectual Property Rights, for example, many multinational companies have gone back and forth from the World Intellectual Property Organisation to the WTO, from an institution which operates according to a broader public-interest mandate to one

¹⁸ Peter Newell, 'Race, class and the global politics of environmental inequality', *Global Environmental Politics*, 5:3 (2005), pp. 70–94.

¹⁹ Gabrielle Marceau and Peter Pedersen, 'Is the WTO open and transparent? A discussion of the relationship of the WTO with non governmental organizations and civil society's claims for more transparency and participation', *Journal of World Trade*, 33:1 (1999), pp. 5–49.

²⁰ Peter Newell and Diana Tussie, (eds), 'Civil society participation in trade policy in Latin America: Lessons and Reflections', *IDS Working Paper*, 267 (Brighton: IDS, 2006).

which has greater powers to enforce claims against states infringing firms' property rights and, as developing countries and activist have gained leverage in those institutions, to bilateral trade and investment agreements where those groups have a less effective presence.²¹ Indeed, one of the challenges for civil society groups is to ensure that issues which profoundly affect global publics are addressed in arenas where opportunities for participation and traditions of deliberation are stronger. For example, some environmentalists seek to keep discussion of environmental issues within UN-led *fora* and out of the WTO where access and space for dialogue around their concerns has traditionally been very restricted.

Despite the limitations associated with deliberation within and about global institutions, it remains the case that it is within environmental arenas that perhaps most emphasis has been placed on the importance of deliberation and public consultation. Principle ten of the *Rio Declaration on Environment and Development* declares for example:

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level each individual shall have appropriate access to information concerning the environment [...] and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

Similarly, article 1 of the Aarhus Convention of 1998 on *Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters* states that 'each party shall guarantee the rights of access to information, public participation in decision-making and access to justice in environmental matters in accordance with the provisions of this Convention'. The wording of the Cartagena Protocol itself states in Article 23:

Parties (to the Protocol) shall Promote and facilitate public awareness, education and participation concerning the safe transfer, handling and use of living modified organisms in relation to the conservation and sustainable use of biological diversity, taking also into account risks to human health. In so doing Parties shall cooperate, as appropriate, with other states and international bodies'.

These agreements provide states with obligations to engage their publics in priority-setting and decision-making about their national environmental policies. Arguments in favour of public participation in policy debates often stress that participation leads to more appropriate, more broadly 'owned', and hence more effective policy. The emphasis on participation and consultation is premised on the idea that the involvement of all stakeholders is critical to the effectiveness of any regulatory framework. It is also acknowledged that without higher levels of public consent or consensus than exist at present, decisions to allow the commercial growing of GM crops might provide a precarious basis for proceeding with GM crop development. At a more fundamental level, it is also often argued that people have a right to be informed about and consulted about decisions that have a direct impact upon their lives.

²¹ Susan Sell, 'The global IP upward ratchet, anti-counterfeiting and piracy enforcement efforts: The State of Play, 9 June 2008, {<http://www.ip-watch.org/files/SusanSellfinalversion.pdf>}; David Levy and Peter Newell (eds), *The Business of Global Environmental Governance* (Cambridge: MIT Press, 2005).

Though most legal instruments neither proscribe nor invoke the language of deliberation, as Meadowcroft argues, 'a vigorous extension of deliberative democratic practice within the environmental and natural resources policy domain can enhance significantly society's capacity to manage environment-related problems in the coming decades.'²² For theorists of deliberation it is also the case that 'the exchange of public reasons in the give and take of dialogue makes speakers answerable and accountable to one another'.²³ What international mechanisms provide, however, is essentially support and encouragement for national level participation, which may or may not take the form of deliberation. For this reason its up take by states is uneven and the form it takes highly diverse, reflective of vastly different political cultures, civil society forms and levels of state capacity as we will see below.

Deliberating ecology and technology

With regard to environmental problems that are classically characterised by the need to act now to avoid serious negative consequences for future generations, questions of who speaks for whom and on what basis in deliberations are key. Who speaks for the non-human world and the unborn? How can the interests of those without the capacity to speak on their own behalf be known? The issues of representation and legitimacy that arise are overwhelming. Added to this is the complexity and uncertainty that often characterise environmental problems which require high levels of scientific, technical and legal expertise to navigate effectively. Here we enter the terrain of public understanding of science. Traditionally it has been assumed that a precondition of effective public engagement in environmental policy processes was high levels of public understanding of the nature of scientific risk associated with problems such as climate change and with the risks and benefits associated with particular technologies such as nuclear energy and biotechnology. Likewise for activists, ill-informed publics were perceived as a barrier to political demands for action as well as changes in behaviour and lifestyle that would enable transitions to sustainable development.

More recent experience, and a now large literature in Science and Technology Studies, has challenged many of these assumptions. It has questioned the idea of ignorant publics and instead explored the political, social, ethical and religious basis on which people question and make sense of the technological choices and social dilemmas with which they are presented.²⁴ Visvanathan coins the term 'cognitive justice' to convey the idea that, though often sidelined, non-expert or lay engagements with technology and environmental decision-making are equally valid even if they employ distinct epistemological tools to make sense of the world.²⁵ The

²² James Meadowcroft, 'Deliberative democracy', in Robert Durant, Daniel Florini and Rosemary O'Leary (eds), *Environmental Governance Reconsidered: Challenges, Choices and Opportunities* (Cambridge MA: MIT press, 2004), p. 183.

²³ Bohman, *Public Deliberation*, p. 17.

²⁴ Brian Wynne, 'Creating public alienation: Expert cultures of risk and ethics on GMOs', *Science as Culture*, 10:4 (2001), pp. 445–81.

²⁵ Shiv Visvanathan, 'Knowledge, justice and democracy', in Melissa Leach, Ian Scoones and Brian Wynne (eds), *Science and Citizens* (London: Zed, 2005), pp. 83–97.

broader point is that decisions on these issues are essentially political and carry social consequences and should not, therefore, be a closed technocratic exercise undertaken by advocates of a new technology or those defined as having the necessary expertise.

Even if it is contested outside the regulatory circle, there is little debate among regulators about whether risk is the appropriate frame for public debate around technology.²⁶ Rather, the debate centres on which risks should be the focus of attention. This means that broader ethical questions around the desirability of the technology, or of the power relations it implies, are left off the agenda. Instead, scientific disputes become a surrogate for 'unstated ethical or economic conflicts'.²⁷ For Levidow *et al*, risk assessment is the process by which 'the state defines the problems for which it accepts responsibility'.²⁸ Implied by it is a 'social contract' that specifies the terms under which state and society agree to accept the costs, risks and benefits of a given technological choice, even if it is unclear how far society is involved in making that choice.

Risk, in this sense, cannot be isolated from ethical and political questions about socially acceptable levels of risk, how much uncertainty we are willing to live with and socially negotiated trade-offs between the risks and benefits of pursuing particular courses of action. Despite this, many regulatory processes are designed in such a way that these broader questions cannot be posed, let alone addressed. Instead, regulations often reinforce a division of responsibility whereby environmental risk assessments are determined by 'objective' science, socio-economic effects are decided by consumer choice and bioethics are considered by professional experts.²⁹ Analyses of regulatory policy processes show that they are often consciously designed to exclude the possibility of wider debate and to contain resistance to the promotion of controversial technologies.³⁰ Constructing publics as ignorant, lacking in scientific literacy, ill-informed and only able to engage with issues of technology on 'emotional' grounds, have been among the devices to create public alienation.³¹ This is in spite of the growing popularity of tools for public participation in debates about biotechnology discussed below which, according to Levidow, have in many cases 'biotechnologized' public participation by narrowing issues to technical problems amenable to neo-liberal risk benefit analysis conducted by specialised experts.³² For example, while the European Commission conceded that, in special cases, it may also consider socio-economic aspects of the technology, the European biotech industry has insisted that product regulation

²⁶ Elements of the following few paragraphs draw from Peter Newell, 'Corporate power and bounded autonomy in the global politics of biotechnology', in Robert Falkner (eds), *The International Politics of Genetically Modified Food* (Basingstoke: Palgrave, 2007), pp. 67–85.

²⁷ Sheila Jasanoff, 'Product, process or programme: Three cultures and the regulation of Biotechnology', in Martin Bauer, (ed.), *Resistance to New Technology* (Cambridge: Cambridge University Press, 1995), p. 325.

²⁸ Les Levidow, Susan Carr, René von Schomberg and David Wield, 'Regulating agricultural biotechnology in Europe: harmonisation difficulties, opportunities, dilemmas', *Science and Public Policy*, 23:3 (June 1996), pp 135–57, p. 136.

²⁹ Julia Black, 'Regulation as Facilitation: Negotiating the Genetic Revolution', *Modern Law Review*, 61:5 (1998), pp. 621–60.

³⁰ Jasanoff, 'Product, process or programme'.

³¹ Wynne, 'Creating public alienation'.

³² Les Levidow, 'Democratizing technology – or technologizing democracy? Regulating agricultural biotechnology in Europe', *Technology in Society*, 20 (1998), pp. 211–26, p. 220.

should 'assess only safety, quality and efficacy for man and the environment on the basis of objective scientific criteria'.³³ 'From industry's standpoint social need should be determined by the free choice of consumers in the market'.³⁴ The market then provides the means to circulate the benefits of products, fetishising the market as an objective and benign force.³⁵ This is a far cry from the practice of deliberation where 'decisions should not be made on the basis of an aggregation of preferences, or strategic compromise between competing interests, but on the basis of publicly expressible reasons'.³⁶

In the face of attempts to present biotechnology development as inevitable and a commercial and political necessity, activists have sought to democratise decision-making through attempting to secure public rights to information, to expose approval processes to public scrutiny. A rationale invoked for restricting public access to information about technologies being considered for approval is the risk of breaching the commercial confidentiality of firms. Concerns have been raised by companies over the security and confidentiality of information and research material submitted to government that could be lost to competitors during the approval process. The reluctance of firms to disclose information about their research and development work on GM crops inhibits, however, a more participatory and inclusive policy process, in which other actors are in a position to verify the status of claims being made about the stringency of tests being undertaken. The Environmental Protection Agency in the US, for example, accepts the lab and field studies of biotech companies, which show no occurrence of harm, as a basis for policy. Voluntary private consultations with the agency before a product is marketed are considered adequate.³⁷ Information submitted is not in the public domain and much of the information is in fact confidential business information. In the UK there is currently pressure not to identify sites where GM crop trials are taking place in the wake of attempts by some activists to uproot the crops in protest at their cultivation.³⁸ The frustration expressed by such acts perhaps reflects the fact that, 'The principal way in which the public enters the area of decisions as to the research and development of genetically-engineered products is as a consumer'.³⁹ Participation in the process for most publics takes the form of exercising consumer rights to buy, or refuse to buy, a product that has already been approved for market entry. Ethical choices are then defined as matters of 'individual choice which can be resolved by the market mechanism alone'.⁴⁰ Deliberation and public participation in traditionally closed and elite controlled arenas is important, therefore, not just as an end in itself and an expression of the importance of process, but as a means to open up, pluralise, and democratise decision-making in areas which have such a crucial bearing on human and environmental well-being.

³³ Quoted in Levidow and Tait, 'The greening of biotechnology', p. 134.

³⁴ Ibid.

³⁵ Les Levidow, 'Utilitarian bioethics? Market fetishism in the GM crops debate', *New Genetics and Society*, 20:1, (2001), pp. 75–84.

³⁶ Smith and Brassett, 'Deliberation and global governance', p. 72.

³⁷ Les Levidow, 'Regulating Bt maize in the US and Europe: A scientific-cultural comparison', *Environment* (December 1999), pp. 10–23.

³⁸ Ian Sample, 'Scientists want top security for GM crop tests', *The Guardian* (29 July 2008), p. 7.

³⁹ Black, 'Regulation as facilitation', p. 628.

⁴⁰ Wynne, 'Public alienation', p. 446–7.

The case of biotechnology

Public anxiety about agricultural biotechnology has produced a series of key conflicts in the international relations of environment and trade.⁴¹ Alongside a case at the WTO brought by the US, Canada and Argentina against the EU's *de facto* moratorium on GM crop approvals, we seen the exercise of coercive diplomacy from key exporters of GMOs, most notably the US, including threats to withdraw aid from developing countries wanting to impose moratoria on the import of GM crops, threats of trade sanctions and retaliatory action. Those contesting the technology have engaged in legal action, consumer boycotts and waves of direct action including acts of civil disobedience such as up-rooting crops in GM field trial sites.⁴²

The ways in which the debate about biotechnology has become caught up in the high politics of trade and investment is unsurprising when we consider the economic weight and political power of the actors at play in this field.⁴³ Nevertheless, the concentration of deliberative exercises in national political arenas means that states, in a formal sense, are the conduits of representation between national and international decision-making spheres. This would not be problematic if states were not so closely aligned in the debate with the commercial interests which stand to gain most from the technology's promotion. The extent to which this is so differs of course from one state to the next, but the most powerful actors in the debate have the closest ties to the biotech industries, including the US, Canada, Brazil and Argentina.

The state is not a neutral actor or mediator of competing societal interests in the politics of agricultural biotechnology. Biotechnology has been conceived and hyped as a central element of the new knowledge economy; a viable and important accumulation strategy in an increasingly competitive global environment, even amongst states that either initially rejected the technology or sought to pursue a twin-track GM and non-GM agricultural path such as Brazil and China. The uptake of the technology, despite ongoing resistance in parts of Europe and Asia, helps to account for the contested terrain of deliberative politics around biotechnology.

In a context such as this, public participation and deliberation has served different and competing purposes. At one end of the spectrum public consultations and dialogues can be used in a 'market-research' function to ensure that biotechnologies become accepted by a sceptical and worried public. At the other end of the spectrum, participation can be used to deepen a democratic process whereby citizens are entitled to know about the impact of technologies upon their environment and to make their views known about how a technology should be regulated. For example, opinion polls about the adequacy of biosafety regulations give a snapshot picture of whether there is public trust in a regulatory system, but

⁴¹ Frans Brom, 'WTO, public reason and food public reasoning in the "trade conflict" on GM food', *Ethical Theory and Moral Practice*, 7:4, (2004), pp. 417–31.

⁴² Ronald J. Herring, 'Opposition to transgenic technologies: Ideology, interests and collective action frames', *Nature*, 9 (2008), pp. 458–63; Peter Newell, 'Trade and biotechnology in Latin America: Democratization, Contestation and the Politics of Mobilization', *Journal of Agrarian Change*, 8:2–3 (2008), pp. 345–76.

⁴³ Peter Newell, 'Globalisation and the governance of biotechnology', *Global Environmental Politics*, 3:2 (2003), pp. 56–72; Peter Newell, 'Bio-hegemony: The Political Economy of Agricultural Biotechnology in Argentina', *Journal of Latin American Studies*, 41 (2009) pp. 27–57.

they do not involve the public in how decisions are made. One of the general findings of the study undertaken for DfiD is that there is currently an imbalance in most countries approach to their obligations under Article 23 towards public education and awareness-raising as opposed to the more difficult process of developing effective mechanisms of consultation, participation and deliberation on biosafety issues. The experience to date around debating biotechnology is that the enabling conditions for participation, let alone deliberation, are highly uneven, a reflection of low levels of resources in many settings, high levels of distrust of information and processes overseen by authorities, and weakly embedded cultures of participation in decision-making. Box 1, nevertheless, provides examples of some of the tools that countries have deployed to date.

Supportive legal frameworks: Some countries have a law of public participation, such as in Bolivia. Laws on rights to information, as in Norway, make it easier for the public to be meaningfully involved in biosafety decision-making.

On-going consultations: In the Netherlands, when a draft decision on the deliberate release of GMOs is deposited for inspection, anyone may submit written reservations to the administrative authority. In the UK, all proposed releases are advertised and placed on a public register for the public to comment. Governments can either facilitate internet dialogues with the public, as in China, or as in Canada, encourage people to submit comments via the web that are then compiled in a report and distributed during a multi-stakeholder consultation.

Multi-level consultations: Many countries have organised these at state and federal level including parliamentary hearings. Public hearings can be organised by independent councils or local authorities for all approvals, as in Denmark, with reports of the consultation being published afterwards. In Denmark, consultations have also been organised at neighbourhood and workplace level even for GMOs for contained use only. In the UK farm-scale evaluations of GMOs have been conducted on sites decided on the basis of local consultations.

On-going evaluation Stakeholder Forums, such as the African Biotechnology Stakeholders Forum, can be set up to review biosafety procedures on an ongoing basis.

Independent Advisory Committees: Examples include the Independent Scientific Steering Committee in the UK. NGO-led and business-led consultations also have an important role to play as business initiatives in India and the use of citizen juries in Brazil and India suggests.

Royal Commissions: These can be independent bodies that produce recommendations, such as in New Zealand. In this case the Commission looked at the risks and benefits of the technology, broader public interest issues including human health and the adequacy of regulatory processes.⁴⁴

Box 1. *Tools for Participation and Consultation*

The various strategies that parties to the Cartagena Protocol have adopted are not exclusive and stand-alone, but should be regarded as mutually supportive. In many ways, they rely upon one another as key components of an 'infrastructure of participation'. For example, involving different public stakeholders means keeping them informed of key decision-making processes and how they are likely to be affected. This, in turn, assumes a basic legal and constitutional framework in which people have rights of access to information and are entitled to be involved in decisions which affect their lives. Similarly, to solicit certain types of input for the design of biosafety frameworks, it makes sense to consult with groups that identify themselves as stakeholders or interested parties, often at the national level. But if the intention is to involve a more representative cross-section of society in order to build public trust in a regulatory system and to identify and deliberate upon issues of concern to society as a whole, then other exercises and approaches become more pertinent. In this sense, formal legal and political infrastructures can create spaces for participation and the enabling tools for active engagement alongside alternative processes for creating dialogue and broadening the circle of political participation in decision-making on biotechnology issues. This separation to some extent parallels the distinction Dryzek draws between the 'software' of deliberative democracy- discourse and communication-and the 'hardware' of formal institutional structures.⁴⁵

Despite increasing emphasis on the importance of participation in environmental policy, proscriptions about how countries should meet these obligations are lacking in international law, such that countries enjoy a large degree of discretion in how they choose to establish procedures for public participation. Some countries have a law of public participation, such as in Bolivia. Within the EU, however, directives on GMOs leave it up to individual member states whether or not to consult the public on any aspect of their proposed use. Many countries, however, have encouraged the submission of oral and written comments from the public on specific decisions, plans, programmes or policies. The extent to which points raised by the public are registered, acknowledged or acted upon depends on the political will and capacity of governments to do so. Some countries require public hearings before decisions are taken on the deliberate release of GMOs. In Austria, only those members of the public that have given *reasoned* objections to an application are invited to a hearing, but public authorities are then obliged to take the results of the hearing into account. In other countries, such as Belgium, the municipality in which an installation for contained use is to be built only has to carry out a public consultation if it is deemed necessary.

Clearly, while crucial, the law can only go so far in facilitating and enabling (rather than promoting) participation and deliberation. International conventions set important precedents but provide no guarantees that countries will honour their obligations. Enforcement of legal rights to consultation, participation and access to information at the national level is critical, as are mechanisms of redress and appeal when those rights are violated. Governments can only do so much, however, for reasons of resources, credibility and reach. There remains an

⁴⁴ Dominic Glover, James Keeley, Peter Newell, Rosemary McGee, *Public Participation and the Biosafety Protocol*, Commissioned Study for DfID and UNEP-GEF (Brighton: IDS, 2003).

⁴⁵ Dryzek, *Deliberative Democracy*.

important role for other actors with access and networks to groups that are often not consulted on these issues on a routine basis that may not even be aware of their rights under legal frameworks or the nature of regulations regarding biotechnology. This is where more informal and non-legal approaches to participation are key in enabling other forms of participation and deliberation. The deliberative and inclusive policy-making processes described below are not an obligation for governments, though governments can help resource them, support them and be involved in them. Rather, they provide *fora* in which and processes by which rights to be heard can be claimed, rather than being legally owned *a priori*. Not only do they have the potential to widen the circle of participation, they hold the possibility of enabling a deeper form of participation in which choices are deliberated and a level of cross-examination of expert opinion is encouraged, that would not normally feature in conventional consultative processes. These methods and techniques are collectively known as 'deliberative and inclusive (or inclusion-ary) policy processes' (DIPs) (see box 2 for examples).

DIPs are *deliberative* in that they are intended to encourage open-ended and mutually respectful dialogue between stakeholders or interested parties. Following Dryzek, for whom deliberation represents 'the essence of democracy'; a renewed concern with the authenticity of democracy in which democratic control is 'substantial rather than symbolic and engaged by competent citizens',⁴⁶ deliberation goes beyond systems characterised solely by voting, interest aggregation or even constitutional rights. Deliberative processes aim to facilitate or enable meaningful collective deliberation among participants, rather than merely to collect information or solicit opinions out of context. This is consistent with the idea that *public reasoning* is the defining feature of deliberative democracy; 'an attitude toward social cooperation, that of openness to persuasion by reasons referring to the claims of others as well as one's own'.⁴⁷ DIPs must, therefore, be distinguished clearly from events such as hearings or public meetings where a panel of officials or experts seeks information or views and answers questions, without enabling an opportunity for collective discussion or open dialogue among the various participants.

Deliberative and inclusive methods can be used both to support effective, informed decisions and to enhance the transparency, democracy and legitimacy of decision-making processes. Nevertheless, DIPs should be regarded as a complement rather than a substitute or replacement for traditional democratic forums and decision-making processes.⁴⁸ Conventional methods of consultation such as opinion polls, questionnaires, hearings, meetings with electoral constituents or lobby groups, and invitations for written comments can be used alongside more innovative participatory methods such as citizens' juries and internet dialogues. Indeed, an important challenge is to ensure that the use of DIPs does not lead to 'participation overload' and duplication of effort.

⁴⁶ Dryzek, 'Deliberative Democracy', p. 1.

⁴⁷ Jurgen Habermas, *The Inclusion of the Other: Studies in Political Theory* (Cambridge MA: MIT press, 1998), p. 244.

⁴⁸ Hemmati, *Multi-stakeholder Processes*; Holmes and Scoones, 'Participatory Environmental Policy'; SEC Commission of the European Communities, *White Paper on European Governance: Enhancing Democracy in the European Union*, SEC (2000) 1547/7 Final October 11.

- **Citizens' juries:** These typically involve a small, representative group of lay participants convened to consider a particular question or issue. Over several days, the 'jury' receives cross-questions, discusses and evaluates 'evidence' in the form of presentations made by experts. At the end, the group is invited to make recommendations and a report is drawn up to reflect the views of the jury-members, including any differences of opinion.
- **Consensus conferences:** A group of lay volunteers are selected according to socio-economic and demographic characteristics. The group receives briefings on the topic in question and meets in private to determine the questions they wish to raise, before hearing and interrogating expert witnesses on a public stage. Consensus conferences have a number of key characteristics which distinguish them from citizen juries: greater opportunity to become familiar with the technicalities of a subject; larger degree of initiative allowed to the panel, which produces and presents its own report; the public and press are admitted to the conferences and can ask their own questions.
- **Deliberative opinion polls:** A deliberative poll measures public opinion when people have had sufficient time and information to consider a particular issue. A large demographically representative group of up to several hundred people conducts a debate on the matter in question, with the opportunity to cross-examine key players. The group is polled on the issue before and after the debate, allowing changes in opinion to be measured.
- **Focus groups:** Typically a small group, broadly representative of the particular citizen group being consulted. Participants discuss an issue of concern, guided by a facilitator. The group is often not required to reach conclusions, but rather the contents of the discussion are studied for what they reveal about shared attitudes and understandings of an issue. Focus groups are generally convened for no more than a couple of hours and do not receive evidence from 'witnesses'.
- **Internet dialogues:** These refer to any form of interactive discussion that takes place through the internet, such as online discussion forums. Internet dialogues are increasingly being used for direct public consultation. The advantage of these dialogues is that they provide a way of collecting a large public response quickly. They also have the benefit of a rapid exchange of ideas with a complete record. The danger is that participation is self-selecting and unrepresentative and in many countries, for reasons of access, will provide only a limited means of soliciting public views. There is also less scope for group deliberation.
- **Issues forums:** Similar to standing consultative panels / citizens' panels (see below), but normally a small group that focuses on a particular issue, with regular meetings over time.
- **Multi-criteria mapping (MCM):** A methodology aimed at combining the transparency and clarity of statistical approaches with the unconstrained framing of open-ended deliberations. The topic area is selected and basic policy options defined. Participants are then interviewed individually, to

develop additional policy options and define evaluative criteria. The options are scored and relative weightings are applied to the criteria. Participants then come together to discuss preliminary quantitative and qualitative analysis provided by researchers, leading to a final report.

- **Scenario workshops or visioning exercises:** Various types of DIPs methods can be used to allow participants to articulate their vision of the future and consider the kind of future they would like to create. These can be applied to broad strategic questions down to specific local or sectoral issues.
- **Stakeholder dialogues:** This is a generic term that applies to processes that bring together affected and interested parties to deliberate and negotiate on a particular issue.
- **Standing consultative panels or citizens' panels:** Normally a large, representative or group of citizens. A standing body is used as a market research instrument for quantitative and qualitative research and consultation. The panel is consulted periodically and a proportion of the members are replaced at regular intervals. These can be used to sample changing opinions and attitudes about a range of issues over time. For example, the UK has a standing Peoples' Panel consisting of 5,000 members of the public selected at random. The panel is used to consult on key issues, track how and why views are changing and conduct surveys⁴⁹

Box 2. Examples of DIPs

The question of the extent to which and the ways in which DIPs can engage or be picked up by formal decision-making processes is a moot one. Moving beyond participation as spectacle; one-off events that involve small numbers of people without effecting lasting change, presents a series of difficult challenges for activists. It means moving beyond regarding deliberation as an 'add-on' to existing decision-making institutions and regarding it instead as a means of 'continually assessing the nature, basis and design of these institutions'.⁵⁰ Hence, whilst Dryzek⁵¹ might be right to suggest that genuine deliberation is more likely to take place over longer periods of time in informal sites where the costs of moderation and changing positions are less high, being situated in such venues and conducted by such means also risks irrelevance in terms of broader political change. This concern resonates with Smith and Brassett's argument about the trade off between achieving 'authentic' deliberation at the expense of democratising global decision-making processes.⁵²

⁴⁹ See Tim Holmes and Ian Scoones, 'Participatory environmental policy processes: Experiences from North and South', *IDS Working paper 113* for discussion (2000), Brighton: IDS and POST (Parliamentary Office of Science and Technology), 'Open Channels: Public Dialogue in Science and Technology', Report no. 153 (March 2001).

⁵⁰ Smith and Brassett, 'Deliberation and Global Governance', p. 90.

⁵¹ Dryzek, *Deliberative Global Politics*.

⁵² Smith and Brassett, 'Deliberation and Global Governance'.

Disciplinary neo-liberal participation

In many ways the embrace of DIPs can be understood as a reaction to the limitations of state-led attempts at deliberation; an attempt to consciously re-cast the boundaries of what can be debated, by whom and on whose terms. Often activist-led, their use builds on and reacts against the weaknesses inherent in an approach which casts citizens as 'users and choosers' rather than 'makers and shapers' of policy. This is a distinction employed by Cornwall and Gaventa⁵³ to denote the fundamental difference between processes which allow people to participate in making and enforcing policy themselves as opposed to selecting from a pre-determined menu of future policy paths which they have played no part in designing. There is clear evidence of such a distinction at play in the politics of deliberation about biotechnology. The international workshops conducted by the Global Environment Facility to train governments in tools of public participation in which the author participated as a facilitator, were organised along the lines of a separation between risk assessment and public participation, with the assumption being that the latter has nothing to do with the former. Such a division overlooks one of the main sources of distrust and suspicion around risk assessment processes: their closed nature and the fact that they rarely allow for citizen inputs into decisions about which risks should be assessed. The following quote from a Brazilian MP highlights this dynamic at work. Referring to the work of Brazil's biosafety commission (CTNBIO) in light of legal challenges and protests from civil society, Ronaldo Vasconcellos said:

We believe it desirable that the CTNBIO make its procedures more open to the Brazilian society, breaking down myths and versions that have arisen, in many cases, because of the closed, un-transparent procedures that marked its activities. We know that a forum of scientists cannot become a popular assembly but, also, it must not be characterized by an atmosphere of gods above the claims of the civil society. The authoritarian style that marked the CTNBIO, especially its presidency up until the year 2001, did not effectively contribute to the development of a biosafety policy in the best interests of the whole Brazilian society.⁵⁴

Yet many states find themselves in a dilemma that results on the one hand from the need for the public to recognise the legitimacy and trust the effectiveness of public regulation and to generate consumer confidence that products are safe to buy, and on the other hand the simultaneous desire to ensure that the technology's development is protected from prying public eyes which may slow innovation and close off opportunities for market access in a competitive global environment. In India, a familiar refrain from industry groups is that an approval process which they caricature as being overly deliberative, as well as marred by legal actions and civil society activism, has placed India at a competitive disadvantage with China where such delays would not be tolerated.⁵⁵ Hence, while recognising the value of being seen to take on board public anxieties about the technology, public engagements are often seen as a means to the end of acceptance of GM products

⁵³ Andrea Cornwall and John Gaventa, 'From users and choosers to makers and shapers: Re-positioning participation in social policy', *IDS Working Paper 127* (Brighton: IDS, 2001).

⁵⁴ Glover *et al.*, 'Public Participation' p. 9.

⁵⁵ P. Newell, 'Lost in Translation? Domesticating Global Policy on GMOs: Comparing India and China', *Global Society*, 22:1 (2008), pp. 115–36.

rather than either as an end in themselves or a means to an inclusive debate about a range of agricultural futures. The case for participation is often also strengthened in the context of a legitimacy crisis about a government's handling of an issue or the ability of regulations to offer adequate protection. The UK's 'big debate' on GM foods can be understood as a response to public hostility to the technology for example and the need to generate trust in the government's handling of food policy in the wake of the 'mad cow' BSE crisis.

One manifestation of how this tension between appeasing public concerns while advancing technological development plays out is around the role of universal and standardised forms of regulation. It manifests itself in the regulation of GMOs, whereby increasing emphasis on public participation in the design of regulations, not least within the Biosafety Protocol itself, sits uneasily with moves by bodies such as the WTO and the OECD to remove scope for government autonomy in responding to diverse public demands. I am referring to attempts to narrow the terms by which countries may restrict the trade in the products of agricultural biotechnology according to principles such as 'sound science' contained in WTO accords, through attempts at harmonised frameworks of regulation minimally disruptive to trade advanced by the OECD and legal challenges brought through the WTO against countries responding to popular concern about GMOs by putting in place moratoria and other restrictive measures. The danger is that publics will become disillusioned and governments will lose credibility if processes of public consultation and deliberation are seen to be irrelevant in the face of these pressures for conformity. Engaged publics have sought to raise issues about whether their society needs biotechnology, as well as broader social, ethical, moral and religious issues regarding the technology's development and application which were subsequently found to be 'off-limits' in terms of those issues that were presented to them as legitimate to discuss and which governments were in a position to act upon, because of the Protocol's narrow focus on biosafety issues resulting from impacts on biodiversity.

The problem with biotechnology, as with many other technologies in which significant amounts of capital have been invested and which are backed by very powerful and well-connected political lobbies, is that no matter what the outcome of public consultations and deliberations, the technology will be adopted in one form or another because there is too much at stake. Prior choices by states based on broader political and commercial commitments, mean that the debate about whether a society wants agricultural biotechnology and under what circumstances has, in many ways, already been bypassed by the reality of imported goods from GM exporting nations. In such a context the space for engagement is reduced to a decision about whether the foods we eat should be labelled or not since the food chain already contains the technology or, in the case of the receipt of GM food aid in times of crisis such as happened in Zambia and Mozambique, whether to eat or go hungry. As the headline of *The Ecologist* put it, perhaps rather starkly; 'Eat shit or die? The US presents Africa with a choice'.⁵⁶ In many cases the timing of deliberative and participatory processes is poorly coordinated with when decisions need to be made. By the time Argentina was encouraged to develop a National Biosafety Framework for soliciting public views and deliberating on the subject,

⁵⁶ 'Eat Shit or Die? America gives Africa a choice', *The Ecologist*, 33:2 (2003), front cover.

over 85 per cent of the soy produced in the country was already GM and attempts to generate debate were seen as a threat to what industry groups claimed was a prevailing consensus in favour of the technology.⁵⁷ As Glover puts it; 'Under such circumstances, a number of powerful interests share a common incentive to avoid opening up public debates about the implications of biotechnology in case public opposition or consumer unease were to place political constraints on its further development and commercialisation'.⁵⁸ The opposite is also true. Where there are fewer vested interests and consensus among stakeholders is higher, governments may feel less threatened by public participation and deliberation around key policy decisions. In relation to the Biosafety Protocol itself it seems; 'the foundational assumptions behind the Protocol imply strongly that there can and should be a trade in GMOs and that such a trade can be conducted safely. Logically, there has to be a strong presumption that these questions, having been decided in other arenas, cannot be re-opened and are therefore to be excluded from public debate'.⁵⁹

Conclusion

The case of deliberation around biotechnology and the way it should be governed provides a series of important insights for an enquiry into the theory and practice of deliberation and its relationship to global governance.

Firstly, the importance of the national context in which deliberation is expected to take place as a determinant of the extent to which citizen concerns will be sought, acted upon or carried forward into global arenas. This is crucial given that while many global institutions enable deliberation between states, they tend to view deeper and more inclusive forms of deliberation as the responsibility of the state and national public arenas as the appropriate venues to realise them. Within those spaces we find evidence of uneven deliberative capabilities and of diverse cultures of deliberation. Examples above show quite clearly that what is possible in Denmark with local level consultations or the farm-scale evaluations in the UK is simply not possible or realistic in China, despite some evidence of moves in a deliberative direction.⁶⁰ Questions of state capacity and willingness, civil society independence and resources and the extent to which there is a developed biotechnology industry that stands to gain from the technology will sharply configure the contours of what is possible. This insight also sheds light on the often Euro-centric assumptions implicit in ideas about deliberation. As Gupta and Bartlett argue: 'nearly all of the rapidly growing literature on applied deliberative democracy is focussed on experiences and circumstances as they exist in the wealthy liberal democracies of the world'.⁶¹ Presumptions are made of a capable

⁵⁷ Peter Newell, 'Bio-hegemony: The Political Economy of Agricultural Biotechnology in Argentina', *Journal of Latin American Studies*, 41 (2009), pp. 25–57.

⁵⁸ Dominic Glover, 'Public participation in national biotechnology policy and biosafety regulation', *IDS Working Paper*, 198 (Brighton: IDS, 2003), p. 10.

⁵⁹ *Ibid.*, p. 6.

⁶⁰ Ethan. J. Leib and Baogang He, *The Search for Deliberative Democracy in China* (Basingstoke: Palgrave, 2006).

⁶¹ Gupta and Bartlett, 'Necessary preconditions', p. 94.

and responsive state with a measure of distance from the corporations it is charged with regulating as well as about arenas of civic engagement where citizens can freely participate, debate and express preferences without fear of reprisal. Such a model, idealised in any case, does not adequately describe the majority world. This is particularly problematic in the case of biotechnology given that it is, arguably, in the majority world that those who stand to gain and lose the most live.

Secondly, debates about the potential of deliberation to construct new forms of global governance need to take into account the *materialities* of deliberation. This is not just a reference to the economic resources and political infrastructure required to enable deliberation. It is a reference to the constraints on policy autonomy and policy space that determine the scope for autonomous state action in a neo-liberal global political economy.⁶² States, some more than others, are compromised in their ability to pursue development paths of their choosing. Disciplinary neo-liberalism means states can be punished by market actors' ability to withdraw or withhold investment, though often the coercive and economic might of states is also bought to bear.⁶³ Democratic space is reduced when trade rules constrain the space for national public deliberation. Policies and measures that may be popularly desirable, such as labelling, comprehensive and precautionary forms of risk assessment, forms of trade protection for the poor, restrictions on investment in domestic seed markets or even moratoriums on the trade in GMOs, are increasingly difficult to enforce on the basis that they are incompatible with global trade accords.

The extent of this 'disciplining' of domestic autonomy is disputed. Millstone and Van Zwanenberg argue that there is sufficient ambiguity in the respective accords dealing with these issues that developing countries can carve out for themselves a broad domestic priority-driven agenda without fear of direct conflict with WTO strictures.⁶⁴ Government decision-making takes place in a condition of 'bounded autonomy',⁶⁵ however. Indeed, one of the over-riding narratives surrounding biotechnology is the 'success' of consumer and NGO activism in halting the technology's penetration of global markets. For Falkner,⁶⁶ it provides a case of the limits of business power. The concern here, however, is the influence that the prevailing commercial and policy environment exerts on the politics of deliberation. Hence whilst sharing Dryzek's emphasis upon competing discourses as sites of deliberation,⁶⁷ and as *one* means of democratising global power, it is important to retain the notion that discourses are also created by some one, for some purpose

⁶² Robert Wade, 'What strategies are viable for developing countries today? The World Trade Organisation and the shrinking of development space', *Review of International Political Economy*, 10:4 (2003), pp. 621–44; Kevin. P. Gallagher, (ed.), *Putting Development First: The Importance of Policy Space in the WTO and International Financial Institutions* (London: Zed books, 2005).

⁶³ Stephen Gill, 'Globalisation, market civilisation and disciplinary neo-liberalism', *Millennium: Journal of International Relations*, 24:3 (1995), pp. 399–423.

⁶⁴ Erik Millstone and Patrick van Zwanenberg, 'Food and agricultural biotechnology policy: How much autonomy can developing countries exercise?', *Development Policy Review*, 21:5–6, (2003), pp. 655–67.

⁶⁵ Newell, 'Corporate power'.

⁶⁶ Robert Falkner, *Business Power and Conflict in International Environmental Politics* (Basingstoke: Palgrave, 2007).

⁶⁷ Dryzek, *Deliberative Democracy*.

to coin Cox's phrase,⁶⁸ they reflect material interests which are also confronting one another in deliberation and may often have exercised a prior influence on the conduct and outcome of the debate.

Thirdly, we need to be clear about the extent to which the global polity and the structures and institutions of global governance can, in any meaningful way, be democratised, *with or without* a deepening of deliberation and citizen engagement. Politics conducted in global arenas is *necessarily* an elite politics with requirements of high levels of resources to attend and participate effectively in negotiations and barriers to participation which include forms of scientific and legal expertise which exclude all but the most powerful states. We also have to appreciate the power relations between states which mean that most developing countries are not free to deliberate on issues, even ones as fundamental as which food to eat, which agricultural base to develop and which industries to support. Many such decisions are, *de facto*, made by the World Bank and the IMF. Ties of aid, trade and investment mean that policy decisions are not often choices freely arrived at on the basis of a reading of national economic and developmental priorities. They reflect conditions imposed by neo-liberal reform packages whose non-acceptance could imply economic ruin. Such economic realities provide an important check on the liberal assumptions that often run through policy and academic thinking in this area.

Emphasising the limits of democratising global governance is not the same as arguing that all forms of deliberation within and about global *fora* are futile or that forms of deliberation are not possible within and beyond global *fora*. They are available to states and a restricted circle of civil society actors within international institutions. It is clearly not realistic, however, to expect face-to-face forms of deliberation within such spaces in a way which can meaningfully or practically include a global citizenry. Delegation, subsidiarity and other means of negotiating multi-level decision-making need to be employed to ensure that a range of approaches to deliberation flourish and can be represented within global decision-making. Global policy-makers move between arenas and across scales so that decisions about global issues are not only made within global *fora*. Channels of influence are of course far more complex and diffuse than that, and global politics are conducted in an increasingly diverse range of formal and informal institutional settings. It is clearly the case that global deliberation, understood as deliberation on key issues of global consequence, does have to take place in arenas which carry the label 'global'. We should not confuse scale and space; virtual and real deliberations in a variety of spaces can be used to debate and influence global politics.

Arguments such as those I have presented here, nevertheless, place this analysis within the critical tradition of deliberation in so far as I have emphasised the potential of forms of deliberation initiated by civil society, often going beyond or in opposition to the 'hardware' of deliberation provided by states, to deepen forms of public engagement in politics. By emphasising DIPs as one channel by which this might be achieved, I have not sought to reify civil society as an emancipatory space. Indeed, questions have been posed about the scope, representativity and

⁶⁸ Robert Cox, 'Social forces, states and world order: Beyond International Relations theory', *Millennium Journal of International Studies*, 10:2, (1981), pp. 126–51.

long-term effectiveness of such strategies. But set against the alternative of state-led processes of participation and deliberation in which the possibility of open-ended debate has been restricted at the outset by prior commitments to biotechnology, such that public engagements are transformed from being opportunities to listen, learn and shape policies in new ways, to being used as tools for convincing a sceptical public, train those involved in the global trade in GM products about rules and regulations or as blatant market surveying, they hold out some promise. Indeed, in considering the opportunity costs of deliberation, it is worth keeping in the mind the political and economic costs that result from excluding publics from decision-making; 'dysfunctional, inappropriate or inefficient regulation, illegitimacy or poor accountability in decision-making and resistance to the implementation of unpopular policies'.⁶⁹

The article has been critical in another sense, however, and that is in its scepticism regarding the possibilities of deliberation about global issues within global arenas and spaces as opposed to national engagements on questions of world politics given the structural and processual barriers that conspire to constrain such possibilities. I would also suggest, at the risk of being very instrumental, that deliberation in political terms, for all its merits as an approach to deepening democracy through civic engagement in and of itself, provides a means to an end. That end may be greater accountability, transparency, or public participation, but these aims in turn are means to make policy more effective, equitable and just. Strategies of deliberation should perhaps be ultimately judged according to their ability to help achieve these broader ends.

⁶⁹ Glover, 'Public participation', p. 25.